



The Harbinger

Newsletter of the
Illinois Native Plant Society

Fall 2020
Vol. 37, No. 3

"... dedicated to the study, appreciation, and conservation of the native flora and natural communities of Illinois."



Ohio Spiderwort (*Tradescantia ohioensis*) is a beautiful wildflower in the Dayflower family and can be distinguished from the 3 other spiderwort species in Illinois by the glabrous sepals and narrow leaves. Photo: Christine Prairie.

In the third issue of *The Harbinger* for 2020, we highlight a tribute to early Illinois botanist Herman Pepon, the implications of climate change on plants, and research by a couple recipients of our grants program. There will be one more issue published later in the year and if anyone has a contribution or suggestions for content, please let me know. Enjoy! ∞ Chris Benda, Editor

In This Issue

- President's Message
- Welcome New Members
- INPS News
- The Legacy of Herman Siles Pepon
- Climate Change & Native Plants in IL
- Tallgrass & Hill Prairies: Pollinators
- Natural Xeric Forest Openings
- Invasive Species News
- Plant Profile: Downy Skullcap
- Other News & Web Links

Governing Board

President

Floyd Catchpole

Past President

Paul Marcum

Vice President

Susanne Masi

Secretary

Angela Kerber

Treasurer

Courtney Cartney

***Erigenia* Editor**

Dr. John Taft

Harbinger

Editor: Chris Benda

Layout: Marta Witt

Membership

Amanda Pankau

Webmaster

Jeff Nelson

At-Large Board

Emily Dangremond

Gretel Kiefer

Anna Braum

Jean Sellar

Jason Zylka

Message from the President



It has been several months now since the pandemic changed how we interact with each other, but I'm pleased to see many chapters holding virtual events to engage with members. At the state level, we have been meeting monthly as normal and are dedicated to keeping our programs running smoothly. We are proud of our grants program and will be soliciting applications for the research and survey grants later this year. Please see the announcement on page 3 for more information.

It is also the time of year where we consider new members to join the state board of directors. We encourage interested members to come forward to volunteer to join the board and will have a ballot ready by the end of the year. It is vital that we get new folks to join the board, to bring new ideas forward and to replace board members that are moving on. The success of the Illinois Native Plant Society rests on our ability to enlist active board members and we call on those with a drive to inspire our members to come forward to serve on the board.

This is also the time to begin to renew your memberships for 2021. This can be easily done on our website at illinoisplants.org. We strongly suggest that you renew (or join) online using PayPal. This makes it easy for the membership coordinator to manage memberships, as well as easing the strain on checking our PO Box and depositing checks. Of course, if you prefer to send a check, that is fine as well, and as always, we appreciate your support!

There's not a lot to discuss since in many respects we are in a holding pattern, but I would like to cast light on the [Illinois Botanists Big Year competition](#), which will be quickly coming to a close for 2020. Since its inception in 2016, this endeavor has motivated our members to get out and record their observations of plants occurring in the state of Illinois. Even if you are not participating in the competition, you can help by confirming observations on [iNaturalist](#). For observations to qualify, they need to become "research grade," which means that they have been corroborated by others. I hope you will help this citizen science effort by visiting iNaturalist and confirming identifications.

There will be one more newsletter published this year and then I will turn over the reins to a new president. I will share more then, but in the meantime I want everyone to know that although this term has been challenging, I am honored to be leading the effort to promote the study, appreciation, and conservation of the native flora and natural communities of Illinois, the prairie state.

Floyd Catchpole,
President INPS

INPS Chapters

CENTRAL CHAPTER Springfield

Trish Quintenz (President)
trishquintenz@gmail.com

FOREST GLEN CHAPTER Champaign/Urbana, Danville

Paul Marcum (President)
marcum@illinois.edu

GRAND PRAIRIE CHAPTER Bloomington/Normal

Joe Armstrong (President)
jearmstr@ilstu.edu

KANKAKEE TORRENT CHAPTER - Bourbonnais

Floyd Catchpole (President)
fcatchpole@comcast.net

NORTHEAST CHAPTER Chicago

cassi saari (President)
northeast.inps@gmail.com

QUAD CITIES CHAPTER Rock Island

Bo Dziadyk (President)
bohndandziadyk@augustana.edu

SOUTHERN CHAPTER Carbondale

Chris Evans (President)
southernillinoisplants@gmail.com

Check out the [Illinois Native Plant Society Events Calendar](#) for Chapter meetings and workshops.

Welcome New Members

Grand Prairie Chapter

Kelly Cronin
Virginia Moody

Southern Chapter

Jackie Hudnall
Mark Vukovich

Quad Cities Chapter

Dean Huisingh

Northeast Chapter

Michael Bailey
Mary Crickmore
Eileen Davis
Beth Frees
Jessica Gomez-Feie

David Manigold
Kristine Smith
David Sollenberger
Jackie Strazis
Margaret Tobin
James Vanderpool
Dolph Williams
Mary Zaander

INPS News

INPS 2021 Grant Opportunities Announced: Research Grant and Survey Grant

Students, citizen scientists, conservation groups and institutions are alerted to consider applying for an INPS **Research Grant** for up to \$2,500 to fund one-year projects. The grant is for research-focused studies on Illinois native plants such as life history, reproductive biology, demography, genetics, comparative site inventories, and community ecology, as well as research on threats to native plants and communities, such as invasive species. Laboratory research as well as projects focused on research relating to education about or restoration of native plants and plant communities will be considered. Projects involving student research or volunteers will be given special consideration. **All projects must demonstrate how they support the mission of the Illinois Native Plant Society.**

INPS is also excited to continue its new second grant for 2021: the **Survey Grant**. This grant for up to \$5,000 will fund searches for Illinois Endangered, Threatened, or some rare species for which current data is inadequate to assess their status and for which field surveys and recovery recommendations are needed. INPS worked with the Illinois Department of Natural Resources to develop a priority list of species for the surveys. Experienced botanical field surveyors, either independent or associated with an institution, are invited to apply for this grant. Partnerships are encouraged.

Full application details and forms for the Research Grant and the Survey Grant will be posted online by late November. [Check our website.](#)

Applications must be received by January 31, 2021. Awards will be announced by March 31, 2021.

INPS is grateful to be able to increase its grant award amounts this year, thanks to contributions from membership fees, generous donations to the Grant Program, proceeds from the 2019 Annual Gathering, and support from the Central Chapter for one grant conducting studies within the Central Illinois counties.

CHAPTER NEWS

Northeast Chapter News

The Northeast Chapter will be holding board elections for the 2021–2022 term (January 2021 through December 2022). All positions will be on the ballot, though we are specifically in search of a Newsletter Editor and a Field Trips Coordinator. Please nominate yourself or consider those in your network for these positions. We thank Anna Braum and Iza Redlinski for their work these past two years! See details about volunteering with the Northeast Chapter on our [Chapter website](#); you can also reach out to cassi saari (cassisaari@gmail.com) with interest or questions. As always, check our social media for upcoming chapter events and native plant content: [Facebook](#), [Instagram](#), [Twitter](#).

The Legacy of Herman Silas Pepoon

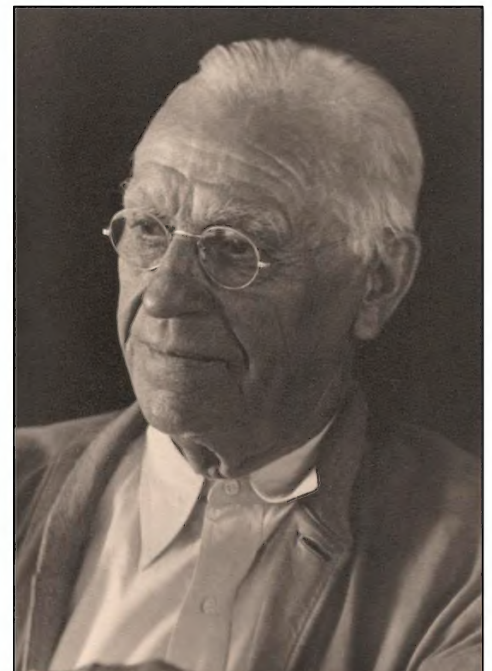
By Kathleen Garness.

Photos courtesy of Cory Ritterbusch.

There is always “That Book” that leads you down a life-long rabbit hole. For me, that book was *Flora of the Chicago Region, an annotated flora of the Chicago area*” by Herman Silas Pepoon. It was one of those books that better botanists than you would mention, just to see if you were paying attention. And it was just obscure enough to pique that desire to obtain it and see what all the fuss was about. I remember my joy when it arrived in its plain brown wrapper, and opened its green, gold-stamped buckram covers to see what was inside: glossy pages with photos, and a treasure trove of information about Chicago’s natural areas seen through one of its preeminent botanists and teachers! I was smitten!

But who was Herman Silas Pepoon and why is he still important today, 160 years after he was born? A son of Civil War captain George Whitfield Pepoon and Mary Anne Abbey Pepoon, both originally from Ohio. He was born in Warren, Jo Daviess County, IL in 1860, and by 1876, at the age of 15, he was already a seasoned botanist. He lists 355 species of plants growing on his home farm!

Pepoon graduated from the University of Illinois in 1881 and received his medical diploma in 1883 at Hahnemann Medical College, Chicago (the same year he married Alma Adeline Wilcox). He served as First Lieutenant in the National Guard from 1883-4 and practiced as a



physician in Lewistown, IL from 1883-92, while his three children were growing. One of his other responsibilities was serving as the Fulton County Fish Warden (1889-1892), a job that offered him time to botanize while ostensibly overseeing local fish supplies.

The family moved back to Chicago in 1892 when he received an offer to serve as school physician and teach life sciences at Lake View High School. They settled at 3842 W. Byron St., Chicago, in a quiet area a few miles west of the school. Eventually he became head of their botany department and worked there until 1930.

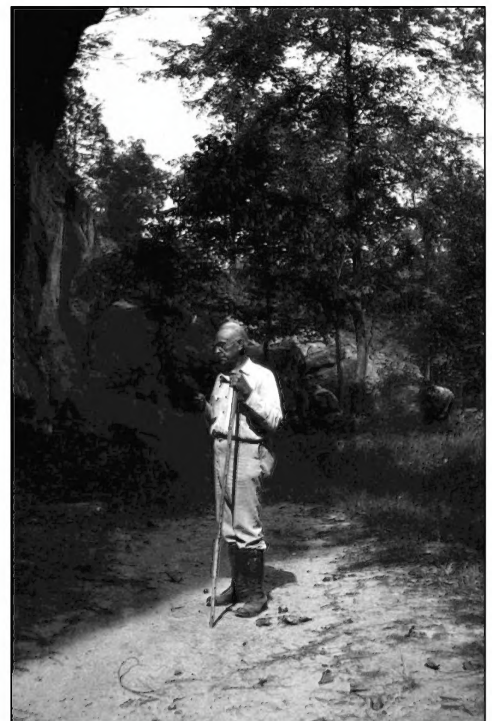
Alma died in 1893, a year after they moved to Chicago, when their youngest daughter was only three years old. When his year of mourning was over, Pepoon resumed more normal social activities and was elected president of the Chicago Mycological Society (1894 to 1900). But for six more years he was a single dad, working to support his three children, teaching at Lake View High School, and serving as their school physician. A part of me wonders how he managed? Certainly he must have had help, but historical records shroud those years in mystery. The children are nowhere to be found in the 1900 census.

He married his second wife, Helen Sophia Foberg, in 1900. She was 19 years his junior. This began one of the most productive periods of his life, with thousands of hours out botanizing in the field, and many journal articles and books to his credit. Typical of many botanists, he spent a lot of time in the field when not in the classroom, but it appears he was also very gregarious. Some of his memberships included the Michigan Academy of Science; Illinois Academy of Science; life member, Chicago Academy of Science; American Forestry Association; President, National Geographic Society; Chicago Geographic Society; Audubon Association of Illinois; American Nature Study Society; and the Rogers Park Roque Club. He was an expert life-long naturalist, knowing how to identify birds, fish, plants, and fungi. He cared passionately for our remnant natural areas. His references to Clark and Pine are required reading! (*Flora of the Chicago Region*, Chicago Academy of Sciences, 1927.)

Pepoon memorialized his sadness of watching the transition of the healthy, mature woodlands of the farm he grew up on in his essay *Destruction of a Farm Flora* in a terse summary: “Fig. 1: A farm of 226 acres in 1876. There are 120 acres of woodland, 9 springs, and a ‘living’ stream. The farm contains 355 species of plants. Fig. 2: The same farm in 1904. There are only 18 acres of woodland, no springs, and no stream. The plants number only 200 species (‘these are the ‘plebians’ and ‘toughs’, ‘tramps’ and ‘rabble’ of the plant world. The royal ones are all missing’), 155 having been exterminated in 28 years.”

He worked as a hobbyist fruit grower with his brother William Abbey Pepoon, who was the quintessential Renaissance man: farmer, inventor, deputy sheriff, jailer, fruit grower, miner, and mill operator. He also had a younger sister, Mary Abbey Pepoon. Education was an important value in their family.

His son, Rudolph Silas Pepoon, worked for ComEd as an electric substation operator. His daughter Mary Lucile became a volunteer Red Cross nurse, died, and was buried in France with hero's honors in 1918, during WW1. His youngest daughter, Laura Constance, married Maurice Buckley, helped raise two children from his deceased first wife, and had one more of their own. They cared for Dr. Pepoon in their home in his later years.



Pepoon is beloved in Illinois botany circles for saving Apple River Canyon State Park, home to the state-endangered bird's-eye primrose (*Primula mistassinica*), a boreal relict which I have only seen at the Ridges in Door County. When one takes the time to read some of the essays included in Cory Ritterbusch's fine volume, *H. S. Pepoon, Pioneer Conservationist of Northwest Illinois – Essays on Ecology 1904-1933*, one can see what a close observer he was of soils, water, fungi, and all that contributes to a plant's natural habitat. Joel Greenberg reproduced Pepoon's essay (one of my favorites) on the Waukegan Moorlands in his volume *Of Prairies, Woods and Water: Two Centuries of Chicago Nature Writing*. In this volume you can see how Pepoon's writing echoes Henry Chandler Cowles' close and eloquent observations of dunesland flora, while giving us a sense of place that can be closely referenced even in present day visits to the nature preserve areas of Illinois Beach State Park.

Pepoon's student Frank Caleb Gates wrote his article *The Vegetation of the Beach Area in Northeastern Illinois and Southeastern Wisconsin*, March 1912, published in the Bulletin of the Illinois State Laboratory of Natural History in Urbana, IL. (His advisor for his bachelor's thesis on a similar topic was a young Henry Allen Gleason, who went on to botanical fame of his own.) Pepoon is recorded in Gates' essay as accompanying him on several collecting trips. Wouldn't you just have loved to been along on one of those, with orchids and gentians recorded then as numbering in the thousands?

Pepoon goes on to say "It would appear that this favored plant refuge is soon to be a memory. A further rumor is that the whole tract is to be made into a model suburban residence area. This is so alarming that determined effort is being made by plant lovers in Waukegan and elsewhere, to have the moorland set aside as a plant and bird refuge. The success of this undertaking is not as yet assured." (*Flora of the Chicago Region*, Chicago Academy of Sciences, 1927)

In 1948, after Pepoon passed, the state started purchasing parcels that would eventually total over 4,000 acres of habitat. In 1964 a portion of it became Illinois' first dedicated nature preserve—Illinois Beach Nature Preserve at Illinois Beach State Park in Lake County. One would like to think that Herman would be pleased to know that his influence may have had some benefit in saving this unique remnant.

Herman taught over 10,000 students, including the aforementioned Frank Caleb Gates (1887-1955), who went on to teach botany in the Philippines, Michigan, and Kansas. Pepoon's influence extends up to the present time, and hopefully, long beyond. His papers are now in the collection of the Chicago Academy of Sciences, for which he served as the Curator of Botany.

Herman Pepoon's home at 3842 W. Byron in Chicago was razed long ago but somehow I think he would be pleased to know that the land is now part of beautiful Independence Park.

References:

Selected Publications by Herman Silas Pepoon:

Gunshot Wound of the Brain, The Clinique, 1893, 6p.

Studies of Plant Life: A Series of Exercises for the Study of Plants (1900) with co-authors Walter R. Mitchell and Fred B. Maxwell, D.C. Heath & Co. 1900, 100pp

Destruction of a Farm Flora, Plant World, 1903, 3p.

Flora of Southwest Michigan, 1906, Michigan Academy of Sciences, 10p.

Cliff Flora of Jo Daviess County, 1909, Michigan Academy of Sciences, 6p.

Representative Plants, Ginn & Co., 1912, 175pp

Flora of the Chicago Region, Chicago Academy of Sciences, 1927

And many other articles along botanical and medical lines.

Also see:

Ritterbusch, Cory. 2011. *H.S. Pepoon: Conservation Pioneer, Essays on Ecology 1904-1933*. Arras Publishing.

Greenberg, Joel. 2008. *Of Prairie, Woods, and Water: Two Centuries of Chicago Nature Writing*. University of Chicago Press.

Kathleen Garness is a scientific affiliate of the Field Museum and Morton Arboretum. Her illustrations have been featured by the Smithsonian Institution, the Field Museum, and the new illustrated Glossary to Flora of the Chicago Region (Wilhelm and Rericha, 2017, Indiana Academy of Science). She has been a Plants of Concern monitor since 2001 and a natural areas steward since 2003. She teaches botanical art at the Prairie House in Westchester and elsewhere. She is a past contributor to Erigenia.

How Will Climate Change Affect Native Plants in Illinois?

By Dr. Emily Dangremond.

Illinois has a variety of habitats that support over 2,000 species of native plants. However, more than 300 of our native plant species are already listed as threatened or endangered (T&E), and face an uncertain future in the face of climate change, habitat destruction, and other human activities. In Illinois, climate change models predict an increase in temperature, making our summers more similar to Texas summers. Plant species will respond to the warmer temperatures, but not all species will respond the same way. Many species are predicted to shift their ranges north to match the temperatures that are most suitable for them. What does this mean for plants in Illinois?

A recent analysis by researchers at the Illinois Natural History Survey predicts that almost all (88%) of the T&E species in Illinois are vulnerable to decline due to the effects of climate change.¹ The researchers systematically reviewed each T&E plant species in Illinois using a tool called the Climate Change Vulnerability Index.² This tool combines scientific information on the biology of each species to assess how much climate is changing in a species' geographic location, and how sensitive or adaptable each species is.

The major reason for the vulnerability of Illinois plants is that so much of their habitat has already been destroyed, and the fragments of habitat that are left are not well connected. The lack of available habitat poses a severe barrier to any species that finds itself in a less than suitable climate.

Another consideration that might make migrating tough is simply the ability of a plant to disperse its seeds. Each plant species has one way of dispersing its seeds—by wind, animals, gravity, or even water. Wind-dispersed seeds can generally move the farthest. Some T&E species barely make seeds at all and rely instead on clonal growth, sending up new stems that are genetically identical. These species are especially at-risk due to the lack of genetic diversity and low reproductive output.

Given that so many species are vulnerable, how does a conservation biologist choose which species to help?



Prairie white-fringed orchid (*Platanthera leucophaea*).

INHS researchers Brenda Molano-Flores and colleagues recommend that conservation efforts focus on species that have all or a substantial portion of their geographic ranges in Illinois—for example, the prairie white-fringed orchid (*Platanthera leucophaea*) or the Kankakee mallow (*Iliamna remota*). In Illinois, some species reach their northernmost limit—most of the geographic range extends farther south, while other species ranges dip into Illinois from the north and Illinois therefore forms the southern edge of these species ranges. These



Kankakee mallow (*Iliamna remota*).

northern, cold-loving species might be especially vulnerable to climate change and it is tempting to want to focus conservation efforts on them. However, Molano-Flores and colleagues recommend a non-traditional strategy of thinking about which species might benefit the most from conservation efforts: focus on the species for which Illinois climate might become more suitable, rather than the species at the cold-loving end of the spectrum. It is most likely that temperatures will be too high to support the northern, cold-temperature species, so energy would be better spent on making sure that the species that will flourish here have the habitat to do so. What does this look like? It could mean assisted

migration—physically moving plants, seeds, or pollen—to establish new populations or increase genetic diversity of already-established populations. Other research on habitat fragmentation shows that connecting habitat fragments with a corridor (a strip of suitable habitat connecting two parcels of the same habitat) can support increased biodiversity by increasing colonization rates and lowering the rates at which a species is lost from that parcel of land.³

Conservation of the native flora of Illinois will be challenging, given the combined threats of climate change and habitat loss. It seems likely that in 50-100 years, some species will no longer be found in Illinois, but others may arrive or expand their presence here if habitat is available for them.

References:

1. Molano-Flores, B, DN Zaya, J Baty, G Spyreas. 2019. An Assessment of the Vulnerability of Illinois' Rarest Plant Species to Climate Change. *Castanea* 84: 115-127.
2. NatureServe. Young, B.E., E. Byers, G. Hammerson, A. Frances, L. Oliver, and A. Treher. 2016. Guidelines for using the NatureServe Climate Change Vulnerability Index Release 3.02. NatureServe. Arlington, Virginia.
3. Damschen, E, et al. 2019. Ongoing accumulation of plant diversity through habitat connectivity in an 18-year experiment. *Science* 365: 1478-1480.

Dr. Emily Dangremond, is assistant professor of biology at Roosevelt University and an INPS board member.

Tallgrass vs. Hill Prairies: Floral Traits Influence Pollinator Diversity

A 2019 Research Grant Report.

By Jesse Smith, Illinois State University.

This research study looked at original prairies that have not been disturbed by modern land altering practices, such as agriculture, and examined both plants and pollinators existing within the prairie. Tallgrass and hill prairies are two unique types of habitat found in Illinois. This study focused on purple prairie clover (*Dalea purpurea*). By measuring multiple characteristics of the plant such as the height and the number of flowering heads, known as inflorescences, this study aimed to measure plant growth between the different prairies. Each plant was also surveyed for a 15-minute pollinator observation period. During this time, insect pollinators that visited the plant were captured and identified.

In total, 278 plants were surveyed and 596 pollinators were observed on those plants. Purple prairie clover was primarily pollinated by bees which made up 525 (88%) of the total observations. By examining the plants and the pollinators in the tallgrass and hill prairies, this study tested the hypotheses that (1) differences in the soil characteristics (nutrients and texture) of tallgrass and hill prairies will alter plant growth and floral displays and (2) the different prairie types will have different pollinator abundances visiting *Dalea purpurea*.



The results of this study show that the plants in the tallgrass prairie grow significantly larger than the plants in the hill prairies. To better represent how floral displays were viewed by pollinators, two floral measurements were combined (total number of blooming flowering heads per plant and the average portion of the flowering heads blooming on each plant). This combined floral display value was significantly different between the two prairie types with tallgrass prairies having significantly larger floral displays than the hillside prairies. Additionally, preliminary analyses of the pollinator visitation data indicate that the total pollinator abundance did not differ between the two prairie types. However, species-specific identification of pollinator visitors is still being processed and could validate the anecdotal, in field, observations that bee diversity between the prairie types differed significantly. Understanding how these remnant tallgrass and hill prairies function and the important roles they play in maintaining plant-pollinator relationships is vital.

The state of Illinois was once 60% prairie, and of that original portion, 99.9% of it has been destroyed by human development (both agricultural and urbanization). Illinois also has over 400 different species of bees native to the state; a majority of these are small solitary bees. As we continue to alter our landscapes it is important to consider the role of the remaining original prairies and even more important to understand the role of bees and other pollinators in these locations. I thank the Illinois Native Plant Research Grant Award for its financial support to conduct this research.

Jesse Smith is currently pursuing a Master's degree in Conservation Biology at Illinois State University.

Information on other projects supported by the INPS can be found on the [INPS Research Grant Awards webpage](#).

Natural Xeric Forest Openings in Southern Illinois

A 2019 Research Grant Report.

By David Barfknecht, Southern Illinois University Carbondale

Before European settlement, the tallgrass prairie was the dominant ecosystem throughout Illinois. However, most of these habitats were either converted for agricultural purposes or experienced woody encroachment due to human-mediated fire suppression. Some of the few remaining remnant prairie plant communities remain as natural xeric forest openings, which have substrates either too poor or shallow to sustain agricultural practices. These patchy communities harbor an intermediate species assemblage representing both the historical tallgrass prairie and the adjacent hardwood forest matrix separating them. For part of my doctoral research, I set out to assess the temporal changes in these communities based on their composition.

Alice Heikens conducted plant surveys and collected environmental data during the summer of 1988 in 19 natural xeric forest opening communities to investigate how edaphic conditions drive species assemblages. These sites had a variety of substrates including chert, limestone, loess, sandstone, and shale. Heikens' research resulted in a classification of these natural xeric forest opening communities based on both dominant plants species and substrate. During the summer of 2019, I repeated these surveys following Heikens' methodology.

Survey data was used to assess taxonomic (species) composition. Phylogenetic trees were created using genetic information from online databases for each recorded species. In addition, functional trait dendrograms for the most frequent species from each survey were constructed using plant height, specific leaf area, leaf nitrogen content, and general growth form measurements also from online trait databases. Phylogenetic trees allow evolutionary relationships to be investigated and F-trait analyses allow mechanisms of species growth and interactions to be considered. In addition, spatial models were constructed based on species and phylogenetic and functional data, using climate and soil map layers as predictors to characterize the spatial structure of these communities for both surveys. All of these data allowed for the comparison of plant communities based on species and phylogenetic and functional diversity and composition over three decades across the southern Illinois landscape.

Overall, there was an increase in the number of species observed between 1988 and 2019 (from 211 to 242 species). The most common species encountered across all sites were Lobatae oaks (*Quercus marilandica*, *Q. stellata*, etc.), little bluestem (*Schizachyrium scoparium*), and a variety of composites (*Symphyotrichum* and *Silphium* species). Based on multivariate analyses, species and phylogenetic and functional community composition and dispersion in these natural xeric forest openings remained distinct based on their substrate type, but not based on surveys. These observations support Heikens' original research based on her analyses, but also include additional support based on both evolutionary and functional relationships. In addition, these communities have remained distinct based on their substrate types over three decades. Spatial modeling of these communities also showed that taxonomic relationships best explain the spatial structure of these communities across southern Illinois, followed by functional and then phylogenetic relationships.

This research shows the importance of considering not only species at face value, but also based on their evolutionary and functional relationships when trying to characterize species assemblages across time and space. In addition, evolutionary and functional relationships may help in building spatial predictive models, which can be used to aid management when new patch-like communities are discovered across the landscape. I thank the Illinois Native Plant Research Grant Award for their financial support to conduct this research.

David Barfknecht is a doctoral student and teaching assistant at Southern Illinois University Carbondale in the Gibson Plant Ecology Lab, with interests in community ecology, native flora, and phylogenetics.

Information on other projects supported by the INPS can be found on the [INPS Research Grant Awards webpage](#).

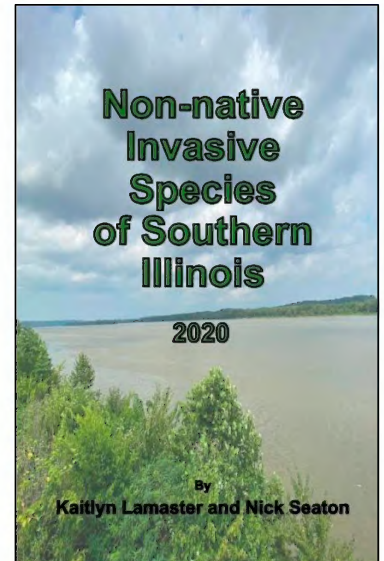
Invasive Species News

Non-Native Invasive Species of Southern Illinois ID Guides are Now Available

We are happy to announce that the Non-Native Invasive Species guide for Southern Illinois has been updated and is now available in print and soon to be available online at the [River to River Cooperative Weed Management Area website](#)! New species have been added along with notable insects to update the previous guide. One of the first steps to control invasive species is proper identification. This guide has been organized in a way to help by placing vines, trees, shrubs, trees, grasses, and herbaceous species together along with color coding to quickly flip to the plant in question. Key features are highlighted with quality photos and additional information about habitat is also provided. A glossary in the back defines botanical terms that may be new to the reader along with space to take notes.

Funding to produce this was made available through a USDA Landscape Scale Restoration Project and will help to raise awareness about the threats of invasive species in Illinois. We would like to thank those that helped put this together and recognize that this was a team effort among partners in the region.

By Nick Seaton, Coordinator of the River to River Cooperative Weed Management Area and INPS Southern Chapter board member.



Plant Profile: Downy Skullcap (*Scutellaria incana*)

By Don Kurz.

Okay, choir, before we begin, you MUST put on your face masks!!!

Social distancing you ask? I'll address that next. One step at a time!

Don Kurz is author of *Illinois Wildflowers*, *Prairie Wildflowers*, and the upcoming *Wildflowers of the Midwest*.



Other News & Web Links

Updated Illinois List of Endangered & Threatened Species

The Illinois Endangered Species Protection Board reviews and revises the Illinois List of Endangered and Threatened Species as warranted and no less often than every five years. The Board completed its most recent review in 2019 and the checklist published May 28, 2020 includes all species designated as endangered or threatened by the Board from that review. Species are listed by taxonomic group and alphabetically by scientific name. See the current [Checklist of Illinois Endangered and Threatened Animals and Plants](#).

Unexpected, Rare Plants Returning to Recently Restored Forest Preserves

Ecologists at the Forest Preserves of Cook County have gotten a surprise this year: More than a dozen species of native plants have been identified at locations in the preserves where they haven't been seen for decades—in some cases, where they have been seen by Forest Preserves ecologists for the first time. Through restoration efforts by the Forest Preserves and volunteers, sites across Cook County are recovering their natural diversity. Read more on the [FPDCC website](#).

Cedar Lake home to sunken treasures

Botanist Linda Curtis recently confirmed water marigolds in bud in Cedar Lake in Lake County. A state-endangered species that grows in only the cleanest of the county's glacial lakes, it is found nowhere else in Illinois. Read about it in the [Lake County News-Sun Outdoors Column](#) by Sheryl Devore.

A Vanishing Coast

Extensive erosion at Illinois Beach State Park has consumed over 100 acres of habitat in the past 80 years. Lake Michigan has also consumed entire streets and dozens of buildings. The rate of loss isn't slowing. A Story Map outlining research into habitat loss was conducted over 2018-2020 at IBSP. Three case studies are presented, each capturing the problem of habitat loss at a different time-scale and highlighting key take-aways of the findings. The Story Map was assembled as part of a collaborative venture between the Illinois Department of Natural Resources Coastal Management Program and the Illinois State Geological Survey through the Prairie Research Institute. Read the complete [Story Map online](#).

Cemetery Prairies of Illinois

Despite being called "the prairie state," Illinois has very little high quality prairie remaining. A [YouTube presentation](#) by Illinois Botanizer Chris Benda highlights some of the gems of the tallgrass prairie found in pioneer cemeteries, with focus on Loda Cemetery Prairie in Iroquois County.

Illinois Monarch Action Plan Takes Flight

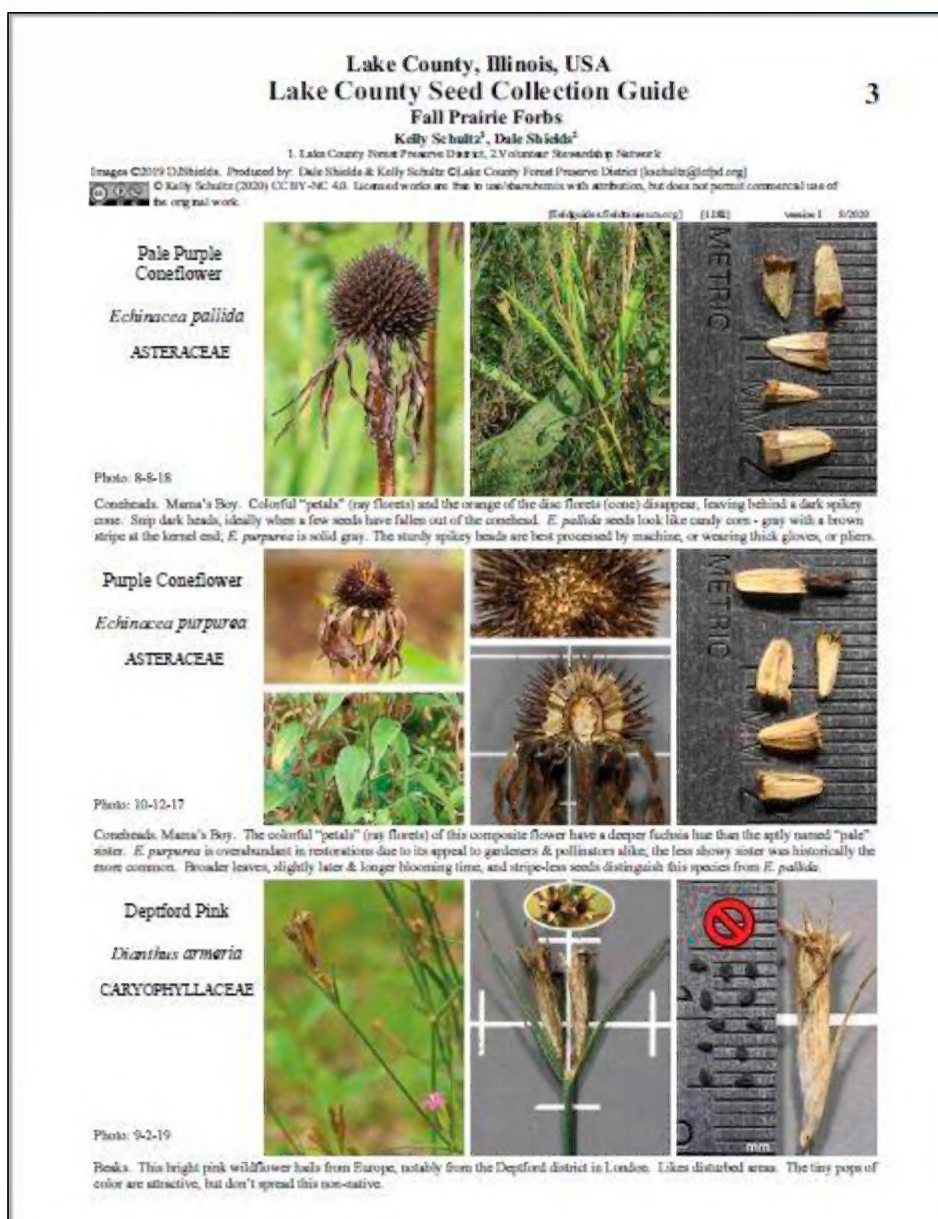
Over the past 20 years, the population of the iconic monarch butterfly, Illinois's state insect, has declined. Given the importance of Illinois to the monarch's migration route, regional and statewide efforts to support monarch butterflies and the habitat they rely on have been under way for several years, and the State of Illinois has long been a committed partner and collaborator in those efforts. As part of a regional goal to add 1.3 billion new milkweed stems and other diverse nectar-producing plants to the landscape by the year 2038, Illinois has pledged to contribute 150 million of those new stems. Download the [Illinois Monarch Action Plan](#) and join fellow Illinoisans in fostering a culture of conservation that ensures future biodiversity and flourishing pollinator habitat across diverse urban and rural landscapes in Illinois.

Yes, You Can Learn to Speak the Language of Plants

The recently published *The Gardener's Botanical: An Encyclopedia of Latin Plant Names* by Ross Bayton, assistant director of the public Heronswood Garden in Kingston, WA, suggests that learning some relevant Latin will open up the botanical world in ways you can't imagine. The author of this book review proposes that "a little botanical Latin self-study might make better use of some of your garden off-season hours than rewatching that TV series!" Read this entertaining article in the [New York Times](#).

New Seed Collection Guides Available

[Lake County Volunteer Steward Dale Shields](#) had noticed that all the published field guides showed plants in flower, but not what they look like when it's time to collect seed, so he started taking pictures of plants when the seed was ripe. Working with Kelly Schultz, director of the Lake County Native Seed Nursery at that time, and using the Field Museum's field guide format, they have completed a set of [12 pictorial field guides](#) showing native (and some adventive) plants.



ILLINOIS NATIVE PLANT SOCIETY
P.O. Box 271
Carbondale, IL 62903

illinoisplants@gmail.com
www.illinoisplants.org



Common Milkweed
(*Asclepias syriaca*) fruit.
Photo: Jimmy Johannsen

The Harbinger Fall 2020

You can renew/join by filling out the form below or online at <http://www.ill-inps.org/online-membership-form/>.

Please become a member and support this local non-profit organization dedicated to the preservation, conservation, and study of the native plants and vegetation of Illinois!



Join us!

- ☐ New Member ☐ Address Change only
☐ Renewal ☐ Additional Donation

Name _____
Street _____
City _____ State _____ Zip _____
Phone Number _____ Membership Year _____
Email _____

Membership Categories

- ☐ Student.....\$15.00
☐ Individual.....\$25.00
☐ Family.....\$35.00
☐ Institutional (nonvoting).....\$20.00
☐ Supporting.....\$50.00
☐ Patron.....\$100.00
☐ Business.....\$125.00
☐ Life.....\$500.00
☐ *Iliamna* (life).....\$1,000.00
☐ *Dodecatheon* (life).....\$2,000.00
☐ *Erigenia* (life).....\$5,000.00

PLEASE MAKE CHECKS PAYABLE TO: Illinois Native Plant Society
INPS, Membership, P.O. Box 271, Carbondale, IL 62903-0271

The Harbinger Newsletter is sent electronically by email.

Chapter Affiliation

Erigenia, our scientific journal, is now available digitally as well as in print.
Please indicate your preference for receiving the journal.
☐ Email only ☐ Postal Mail only ☐ Both

- ☐ Central (Springfield) ☐ Northeast (Chicago)
☐ Forest Glen (Westville) ☐ Quad Cities (Rock Island)
☐ Grand Prairie (Bloomington) ☐ Southern (Carbondale)
☐ Kankakee Torrent ☐ Other/Uncertain _____

I would like to help with:

- ☐ Leadership & Organization (serving on board at State or Chapter level)
☐ Leading Field Trips & Tours
☐ Organizing Workshops &/or Seminars

- ☐ Giving Workshops &/or Seminars
☐ Public Speaking
☐ Fund Raising
☐ Website Assistance/Management

- ☐ Public Media/Communications
☐ Writing/Submitting articles
☐ Photography
☐ Other: _____

My area of expertise: _____